



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/789,394	02/27/2004	Tomohiko Matsushita	15115.108001	4933
7590	06/14/2005			
Jonathan P. Osha Rosenthal & Osha L.L.P. Suite 2800 1221 McKinney St. Houston, TX 77010				EXAMINER VU, PHU
				ART UNIT 2871
PAPER NUMBER				
DATE MAILED: 06/14/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/789,394	MATSUSHITA, TOMOHIKO	
	Examiner	Art Unit	2871
	Phu Vu		(PJM)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on ____.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-6 is/are pending in the application.
 - 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) Claim(s) ____ is/are allowed.
- 6) Claim(s) 1-6 is/are rejected.
- 7) Claim(s) ____ is/are objected to.
- 8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on ____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. ____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date ____.
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. ____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Yamazaki 6568819.

Regarding claim 1, Yamazaki teaches a reflector used for a liquid crystal display device, the reflector comprising:

a plurality of unit reflecting portions (fig. 12 element 84), the unit reflecting portions being arranged by repeating an arrangement pattern of a unit region, wherein a repetition pitch (element P) of the unit region is integral times the pitch of the pixels of the liquid crystal display device and more than 5000 micrometers. The MPEP states:

"[A] prior art reference that discloses a range encompassing a somewhat narrower claimed range is sufficient to establish a prima facie case of obviousness." In re Peterson, 315 F.3d 1325, 1330, 65 USPQ2d 1379, 1382-83 (Fed. Cir. 2003)." See MPEP section 2144.05

Yamazaki discloses a repetition pitch being a ratio of 5000:1 to 1:1 of the height, which, is 1 to 100 micrometers (see abstract), results in ranges over 5000 micrometers. For example a repetition pitch of 500 and height of 20 would result in a repetition pitch of 10,000. Thus a prior art reference that discloses a range encompassing a somewhat narrower claimed range is sufficient to establish a prima facie case of obviousness.

Regarding claim 2, Yamazaki teaches a reflector used for a liquid crystal display device, the reflector comprising:

a plurality of unit reflecting portions (fig. 12 element 84), the unit reflecting portions being arranged by repeating an arrangement pattern of a unit region, wherein a repetition pitch (element P) of the unit region is integral times the pitch of the pixels of the liquid crystal display device and more than 10000 micrometers. The MPEP states:

"[A] prior art reference that discloses a range encompassing a somewhat narrower claimed range is sufficient to establish a prima facie case of obviousness." In re Peterson, 315 F.3d 1325, 1330, 65 USPQ2d 1379, 1382-83 (Fed. Cir. 2003)." See MPEP section 2144.05

Yamazaki discloses a repetition pitch being a ratio of 5000:1 to 1:1 of the height which, is 1 to 100 micrometers (see abstract), results in ranges over 10000 micrometers. For example a repetition pitch of 500 and height of 20 would result in a repetition pitch of 10,000. Thus a prior art reference that discloses a range encompassing a somewhat narrower claimed range is sufficient to establish a prima facie case of obviousness.

Regarding claim 3, the reference teaches a diameter of 50 micrometers to 200 micrometers (see abstract) while the claim calls for a diameter of less than 80 mm. The MPEP states:

In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists. In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); In re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990) See MPEP section 2144.05

Since overlap exists between the disclosed prior art a prima facie case of obviousness exists.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki in view of Patel.

Yamazaki teaches all the limitations of claim 4, except the value of the standard of deviation of the reflecting portion diameters divided by the mean value of the reflecting portion diameters is not more than .3. However, a low standard deviation is almost always desired in production because this leads to increased uniformity and predictability. Patel shows this principle in polymer composition (see column 9 lines 29-43). Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to improve lower the standard deviation/ mean value to improve uniformity and predictability.

Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ikeda et al. US Publication No. 2003/0016323 in view of Yamazaki et al. US Patent No. 6568819.

Regarding claim 5, Ikeda a reflecting display device comprising a reflector. Ikeda fails to teach, the reflector comprising:

a plurality of unit reflecting portions (fig. 12 element 84), the unit reflecting portions being arranged by repeating an arrangement pattern of a unit region, wherein a repetition pitch (element P) of the unit region is integral times the pitch of the pixels of the liquid crystal display device and more than 10000 micrometers.

Yamazaki teaches a guide plate (reflector) (see claim 1 rejection) that can be applied to various display applications and functionally with a plurality of light sources (see column 12 lines 23-32), which leads to increased flexibility. Therefore, at the time

Art Unit: 2871

of the invention it would have been obvious to use Yamazaki's reflector to gain increased design flexibility.

Regarding claim 6, Ikeda teaches a reflective liquid crystal display comprising which is considered an electronic apparatus.

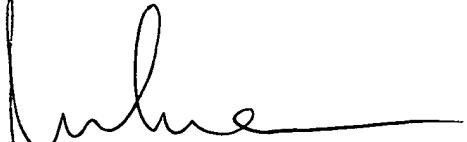
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phu Vu whose telephone number is (571)-272-1562. The examiner can normally be reached on 8AM-5PM M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on (571)-272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Phu Vu
Examiner
AU 2871



DUNG T. NGUYEN
PRIMARY EXAMINER